IN THE CLAIMS:

Claims 1-36 (cancelled)

Claim 37 (New): A communication system, comprising:

a mux node including a first lightwave interface device for communication with a head end, said mux node further including a second lightwave interface device for transmitting a plurality of optical signals, wherein at least two of the optical signals include both analog and digital signals; and

a mini fiber node including a third lightwave interface device for receiving said optical signal from said second lightwave interface device of said mux node, said mini fiber node being further configured to communicate analog and digital signals to end user equipment via a wired connection.

Claim 38 (New): The communication system of claim 37, wherein said mux node is operative to combine upstream signals received from a plurality of mini fiber nodes for transmission to said head end.

Claim 39 (New): The communication system of claim 38, wherein said upstream signals include analog upstream signals and digital upstream signals.

Claim 40 (New): The communication system of claim 39, wherein said digital upstream signals are radio frequency digital signals that are converted into digital base band signals.

Claim 41 (New): The communication system of claim 37, wherein said mux node includes a wavelength division multiplexing component that enables communication of analog and digital downstream signals from said head end, and an optical splitter for splitting said analog downstream signal into a plurality of analog signals corresponding to a plurality of mini fiber nodes.

Claim 42 (New): The communication system of claim 37, wherein said mux node includes a radio frequency signal compiler that enables frequency division multiplexing of a plurality of upstream signals received from a corresponding plurality of mini fiber nodes.

Claim 43 (New): The communication system of claim 37, wherein said wired connection is a coaxial cable.

Claim 44 (New): The communication system of claim 43, wherein said mini fiber node receives digital signals, and analog signals that include TV broadcast signals, wherein said digital signals are transmitted on said coaxial cable in a first frequency band, and said analog signals are transmitted on said coaxial cable in a second frequency band.

Claim 45 (New): The communication system of claim 44, wherein said first frequency band is 800-880 MHz and said second frequency band is 50-750 MHz.

Claim 46 (New): A communication system, comprising:

a mux node including a first lightwave interface device for communication with a head end, said mux node further including a second lightwave interface device for transmitting a plurality of optical signals, wherein at least two of the optical signals include both a first downstream signal intended for a plurality of users and a second downstream signal intended for a single user; and

a mini fiber node including a third lightwave interface device for receiving said optical signal from said second lightwave interface device of said mux node, said mini fiber node being further configured to communicate first and second downstream signals to end user equipment via a wired connection.

Claim 47 (New): A network node that communicates between a head end and a plurality of mini fiber nodes, each of the plurality of mini fiber nodes being configured to communicate analog and digital signals to end user equipment via a wired connection, comprising:

a first lightwave interface device for communication with a head end; and

a second lightwave interface device for transmitting a plurality of optical signals to a respective plurality of mini fiber nodes, wherein at least two of the optical signals include both analog and digital signals.

Claim 48 (New): The network node of claim 47, further including a wavelength division multiplexing component that enables communication of analog and digital downstream signals from said head end, and an optical splitter for splitting said analog downstream signal into a plurality of analog signals corresponding to a plurality of mini fiber nodes.

Claim 49 (New): The network node of claim 47, further including a radio frequency signal compiler that enables frequency division multiplexing of a plurality of upstream signals received from a corresponding plurality of mini fiber nodes.

Claim 50 (New): The network node of claim 47, further including a mux/demux/router component that is operative to receive electrical signals that have been converted from optical signals received from said head end, demultiplexes the received electrical signals, and forwards separate demultiplexed signals to said second lightwave interface device that transmits said separate demultiplexed signals to designated mini fiber nodes.

Claim 51 (New): A communication method, comprising:

receiving, in a mux node, first optical signals from a head end;

transmitting, from said mux node, a plurality of optical signals to a respective plurality of mini fiber nodes, wherein at least two of the optical signals include analog and digital signals;

converting, in said mini fiber node, a received optical signal into first electrical signals for processing; and

transmitting second electrical signals to end user equipment via a wired connection.

Claim 52 (New): The communication method of claim 51, combining, in said mux node, upstream signals received from a plurality of mini fiber nodes for transmission to said head end.

Claim 53 (New): The communication method of claim 52, wherein said upstream signals include analog upstream signals and digital upstream signals.

Claim 54 (New): The communication method of claim 53, wherein said digital upstream signals are radio frequency digital signals that are converted into digital base band signals.

Claim 55 (New): The communication method of claim 51, further comprising splitting, in said mux node, an analog downstream signal into a plurality of analog signals corresponding to a plurality of mini fiber nodes.

Claim 56 (New): The communication method of claim 51, further comprising frequency division multiplexing, in said mux node, a plurality of upstream signals received from a corresponding plurality of mini fiber nodes.

Claim 57 (New): The communication method of claim 51, wherein said mini fiber node receives first upstream signals in a first frequency band and second upstream signals in a second frequency band.

Claim 58 (New): The communication method of claim 57, wherein said first frequency band is 5-40 MHz, and said second frequency band is 930-1000 MHz.

Claim 59 (New): The communication method of claim 51, wherein said wired connection is a coaxial cable.

Claim 60 (New): The communication method of claim 59, wherein said mini fiber node receives digital signals, and analog signals that include TV broadcast signals, wherein said digital signals are transmitted on said coaxial cable in a first frequency band, and said analog signals are transmitted on said coaxial cable in a second frequency band.

Claim 61 (New): The communication method of claim 60, wherein said first frequency band is 800-880 MHz and said second frequency band is 50-750 MHz.

Claim 62 (New): A communication method, comprising:

receiving, in a lightwave interface device, an optical signal including analog and digital signals from a head end via a mux node;

modulating received digital signals into radio frequency signals;

combining said radio frequency signals and received analog signals; and

communicating said combined radio frequency signals and received analog signals to end user equipment via a wired connection.

Claim 63 (New): The communication method of claim 62, further comprising separating upstream signals into upstream signals of two radio frequency bands.

Claim 64 (New): The communication method of claim 62, further comprising:

demodulating upstream signals in a first radio frequency band into digital base band signals;

communicating said digital base band signals to said lightwave interface device; and

communicating upstream signals in a second radio frequency band to said lightwave interface device.

Claim 65 (New): The communication method of claim 62, wherein said wired connection is a coaxial cable.

Claim 66 (New): The communication method of claim 62, wherein said analog signals include television signals.